

CLAIM AMENDMENTS

Claim 1 (currently amended): A portable security alarm system for detecting the movement of an object and providing information relative to said movement, said system comprising a movement detecting and signal transmitting means for detecting movement an object and wirelessly transmitting a predetermined signal indicating movement of said object, and a receiver means for receiving said predetermined signal and providing a security response, said movement detecting and signal transmitting means comprising an inertial sensor adapted to sense both long wave and vibratory motion and control circuitry for distinguishing between a long-wave motion event and a vibration event.

Claim 2 (original): The system of claim 1 wherein said movement detecting and signal transmitting means comprises a gyroscope sensor.

Claim 3 (original): The system of claim 1 wherein said movement detecting and signal transmitting means comprises a MEMS accelerometer sensor.

Claim 4 (original): The system of claim 1 wherein said movement detecting and signal transmitting means comprises a piezo film accelerometer sensor.

Claim 5 (original): The system of claim 2 wherein said movement detecting and signal transmitting means comprises an accelerometer sensor with a piezoelectric audio transducer construction that includes a piezoelectric element mounted to a diaphragm, said sensor further including a mass attached to said diaphragm.

Claim 6 (original): The system of claim 5 wherein said mass is one of a quantity of adhesive, a quantity of solder, or a solid object bonded to said diaphragm.

Claim 7 (original): The system of claim 1 wherein said movement detecting and signal transmitting means comprises an accelerometer sensor with a piezoelectric audio transducer construction that includes a piezoelectric element mounted to a diaphragm, and with said piezoelectric element and said diaphragm being disposed within a partial vacuum environment.

Claim 8 (original): The system of claim 7 wherein partial vacuum environment is provided by an airtight compartment.

Claim 9 (original): The system of claim 8 wherein said airtight compartment is a vacuum sealed enclosure.

Claim 10 (original): The system of claim 1 wherein said movement detecting and signal transmitting means further comprises a magnetic field sensor.

Claim 11 (currently amended): The system of claim 1 further comprising ~~A portable security alarm system for detecting the movement of an object and providing information relative to said movement, said system comprising a movement detecting and signal transmitting means for detecting movement of an object and wirelessly transmitting a first predetermined signal indicating movement of said object,~~ environmental monitor means for sensing an environmental condition and wirelessly transmitting a second predetermined signal indicating said environmental condition, and a receiver means for receiving said ~~first and~~ second predetermined signals and providing a security response.

Claim 12 (original): A system in accordance with claim 11 wherein said environmental monitor is separate from said movement detecting and signal transmitting means.

Claim 13 (original): A system in accordance with claim 11 wherein said environmental condition includes one or more of temperature, smoke level, carbon monoxide level, and hydrocarbon level.

Claim 14 (currently amended): The system of claim 1 further comprising ~~A portable security alarm system for detecting the movement of an object and providing information relative to said movement, said system comprising a movement detecting and signal transmitting means for detecting movement of an object and wirelessly transmitting a predetermined signal indicating movement of said object, a receiver means for receiving said predetermined signal and providing a security response, and~~ a remote speaker system adapted to receive wireless signals from said receiver means.

Claim 15 (original): The system of claim 14 wherein said speaker system stores plural audio files.

Claim 16 (original): The system of claim 14 wherein said speaker system is adapted to receive a wireless signal from said receiver means specifying one of said audio files and a security state code that specifies a manner in which the specified audio file is to be output.

Claim 17 (original): The system of claim 14 wherein said speaker system has a unique identifier that said receiver means uses to communicate with said speaker system and to distinguish said speaker system from other speaker systems of like construction.

Claim 18 (currently amended): The system of claim 1 further comprising ~~A portable security alarm system for detecting the movement of an object and providing information relative to said movement, said system comprising a movement detecting and signal transmitting means for detecting movement of an object and wirelessly transmitting a predetermined signal indicating movement of said object, a receiver means for receiving said predetermined signal and providing a security response, and~~ a remote control unit comprising a first switch for

setting said receiver means into a hold state, a second switch for setting said receiver means into an away state, and third switch for setting said receiver means into a panic state.

Claim 19 (original): The system of claim 18 wherein said receiver means is adapted to respond to activation of said first switch by disarming itself from producing a security response for a predetermined period, said predetermined period being selectable based on a manner in which said first switch is activated.

Claim 20 (original): The system of claim 18 wherein said receiver means is adapted to arm itself for providing a security response when said second switch is activated.

Claim 21 (currently amended): The system of claim 1 wherein ~~A portable security alarm system for detecting a security condition and providing information relative thereto, said system comprising plural triggers for detecting said security condition and wirelessly transmitting a predetermined signal indicating said condition, and a receiver means for receiving said predetermined signal and providing a security response,~~ said predetermined signal further includes a unique identifier identifying said trigger and a status code providing information about a condition associated with said trigger.

Claim 22 (original): The system of claim 21 wherein said status code provides information about a condition external to said trigger.

Claim 23 (original): The system of claim 21 wherein said status code provides information about a condition internal to said trigger.

Claim 24 (original): The system of claim 21 wherein said receiver means is adapted to maintain attribute information so that following receipt of said predetermined signal containing one of said status codes from one of said triggers, subsequent predetermined signals containing the same status code from the same trigger will be ignored until processing of the first predetermined signal is complete, but subsequent predetermined signals from the same trigger containing different status codes, and predetermined signals from other triggers, will be processed.

Claim 25 (original): The system of claim 21 wherein said receiver means is adapted to associate each of said triggers with an assigned security state when said receiver means is in a home state, said security state being used to produce said security response when one of said triggers transmits said predetermined signal.

Claim 26 (original): The system of claim 25 wherein said receiver means is adapted to override said default security states when said receiver means is in an away state.

Claim 27 (original): The system of claim 21 wherein said receiver means includes a home state, an away state, and a panic state.

Claim 28 (original): The system of claim 21 wherein said receiver means includes a quiet mode in which said security response produces fewer audible alarms than when said receiver means is not in said quiet mode.

Claim 29 (original): The system of claim 21 wherein said receiver means is adapted to store word codes in association with said triggers that identify objects to which said triggers are mounted.

Claim 30 (original): The system of claim 21 further including a remote control unit for controlling said receiver means and wherein said triggers are movement detecting and signal transmitting means for detecting movement of objects, said remote control units and said movement detecting and signal transmitting means each being assigned one of a restricted designation or an unrestricted designation, and said receiver means being adapted to prevent a restricted control unit from disarming said system relative to a restricted movement detecting and signal transmitting means, while allowing an unrestricted control unit to disarm said system relative to any of said movement detecting and signal transmitting means.

Claim 31 (original): A security network comprising a security administration system and at least one portable security alarm system, said security administration system comprising a computer host programmed to respond to security alerts, a communication interface, and a

data storage resource containing provisioned information for subscribers using said portable security alarm systems, said portable security alarm system comprising plural triggers adapted to detect a security condition and provide an indication thereof including a unique trigger identifier and a status code to a base station in wireless communication with said triggers, said base station storing word codes that identify objects to which said triggers are mounted and being adapted to implement a security response to a condition being sensed by any of said triggers, said security response including transmission of a base station identifier associated with said base station and a trigger identifier, a status code and a word code associated with one of said triggers to said security administration system.

Claim 32 (original): The security network of claim 31 wherein said subscriber information provisioned by said security administration system includes contact information for each trigger of each of said portable security alarm systems, and wherein a security notification is made based on said contact information following receipt of said transmission from said base station.

Claim 33 (original): The security network of claim 32 wherein said contact information includes contact information for plural security notification recipients, and wherein said security notification includes attempting contact of each recipient in sequence until one of said recipients responds.

Claim 34 (original): The security network of claim 32 wherein said contact information includes contact information for plural security notification recipients, for plural languages, and wherein said security notification includes attempting contact of each recipient simultaneously.

Claim 35 (original): The security network of claim 32 wherein said contact information includes contact information for plural security notification recipients, and wherein said security notification includes setting up a conference call among said recipients.

Claim 36 (currently amended): The system of claim 1 wherein~~A portable security alarm system for detecting the movement of an object and providing information relative to said~~

~~movement, said system comprising a movement detecting and signal transmitting means for detecting movement an object and wirelessly transmitting a predetermined signal indicating movement of said object, and a receiver means for receiving said predetermined signal and providing a security response, said movement detecting and signal transmitting means is~~being
adapted to respond to movement of said object without said object having to be in a reference position prior to said movement.

Claim 37 (currently amended): The system of claim 1 further comprising~~A portable security alarm system for detecting the movement of an object and providing information relative to said movement, said system comprising a movement detecting and signal transmitting means for detecting movement of an object and wirelessly transmitting a predetermined signal indicating movement of said object, a receiver means for receiving said predetermined signal and providing a security response, and a remote control unit comprising a radio frequency identification circuit adapted to provide remote control unit identification information to said movement detecting and signal transmitting means, and said movement detecting and signal transmitting means being adapted to provide said remote control unit identification information along with said predetermined signal to said receiver means.~~

Claim 38 (currently amended): The system of claim 1 wherein~~A portable security alarm system for detecting the movement of an object and providing information relative to said movement, said system comprising a movement detecting and signal transmitting means for detecting movement an object and wirelessly transmitting a predetermined signal indicating movement of said object, and a receiver means for receiving said predetermined signal and providing a security response, said receiver means~~has~~having~~ a video output.

Claim 39 (currently amended): The security network of claim 31 further comprising said security administration system~~A security network comprising a security administration system and at least one portable security alarm system having a wireless receiver means and one or more wireless movement detecting and signal transmitting means for transmitting security information to said receiver means, said security administration system comprising a computer host programmed to respond to security alerts from said at least one portable security alarm system, and being further programmed to provide information to said at least~~

one portable security alarm system, said information including one of security alert notifications from a governmental agency, advertising or other commercial information.

Claim 40 (currently amended): A portable security alarm system for detecting the movement of an object and providing information relative to said movement, said system comprising a movement detecting and signal transmitting means for detecting movement of an object and wirelessly transmitting a predetermined signal indicating movement of said object, and a receiver means for receiving said predetermined signal and providing a security response, said movement detecting and signal transmitting means comprising an inertial sensor that includes a piezoelectric element mounted to a flexible diaphragm, and a mass on one of said piezoelectric element and said diaphragm such that a substantial portion of said mass is disposed within a perimeter of said piezoelectric element or said diaphragm.

Claim 41 (original): The system of claim 40 wherein said mass is secured to said piezoelectric element or said diaphragm by way of a coupling connection that introduces a desired strain in said piezoelectric element through flexing of said diaphragm as said sensor is accelerated in a direction generally orthogonal to a principal plane of said diaphragm.

Claim 42 (original): The system of claim 40 wherein said mass is secured to said piezoelectric element or said diaphragm by way of a coupling connection that is sized to introduce a desired strain in said piezoelectric element through a cantilever coupling moment as said sensor is accelerated in a direction generally parallel to a principal plane of said diaphragm.

Claim 43 (original): The system of claim 40 wherein said mass is unstable.

Claim 44 (original): The system of claim 40 wherein said mass is unstable and unbalanced.

Claim 45 (original): The system of claim 44 wherein said mass comprises a primary mass element that is attached to one of said piezoelectric element and said diaphragm, and a secondary mass element on said primary mass element.

Claim 46 (original): The system of claim 45 wherein said primary mass element is larger than said secondary mass element.

Claim 47 (original): The system of claim 45 wherein one or both of said primary mass and said secondary mass are generally spherical in shape.

Claim 48 (original): The system of claim 45 wherein said secondary mass element is on said primary mass element at a location that is offset from a line extending through said piezoelectric element and a center of gravity of said primary mass element.

Claim 49 (original): The system of claim 40 wherein said inertial sensor comprises a piezoelectric audio transducer having said mass secured thereto.

Claim 50 (original): The system of claim 40 wherein said inertial sensor comprises a support ring housing to which said diaphragm is mounted and which facilitates free-flexing of said diaphragm.

Claim 51 (currently amended): ~~The system of claim 40A portable security alarm system for detecting the movement of an object and providing information relative to said movement, said system comprising a movement detecting and signal transmitting means for detecting movement an object and wirelessly transmitting a predetermined signal indicating movement of said object, and a receiver means for receiving said predetermined signal and providing a security response, said movement detecting and signal transmitting means comprising an inertial sensor that includes a piezoelectric element mounted to a diaphragm, and a mass on one of said piezoelectric element and said diaphragm,~~ said sensor further including a main housing carrying said inertial sensor, a circuit board, a battery and means for affixing said movement detecting and signal transmitting means to said object.

Claim 52 (original): The system of claim 51 wherein said diaphragm is mounted to a ring housing that is attached via clips to said circuit board.

Claim 53 (original): The system of claim 51 wherein said means for affixing comprises adhesive.

Claim 54 (currently amended): The system of claim 40 wherein said system is part of a portable security alarm kit for detecting the movement of an object and providing information relative to said movement, said kit comprising a portable carrying case, plural movement detecting and signal transmitting means situated in said case for detecting movement an object and wirelessly transmitting a predetermined signal indicating movement of said object, a receiver means situated in said case for receiving said predetermined signal and providing a security response, and a remote control unit situated in said case for controlling said receiver means.

Claim 55 (currently amended): An inertial sensor comprising a piezoelectric element mounted to a flexible diaphragm, and a mass on one of said piezoelectric element and said diaphragm such that a substantial portion of said mass is disposed within a perimeter of said piezoelectric element or said diaphragm.

Claim 56 (original): The sensor of claim 55 said mass is secured to said piezoelectric element or said diaphragm by way of a coupling connection that introduces a desired strain in said piezoelectric element through flexing of said diaphragm as said sensor is accelerated in a direction generally orthogonal to a principal plane of said diaphragm.

Claim 57 (original): The sensor of claim 55 wherein said mass is secured to said piezoelectric element or said diaphragm by way of a coupling connection that is sized to introduce a desired strain in said piezoelectric element through a cantilever coupling moment as said sensor is accelerated in a direction generally parallel to a principal plane of said diaphragm.

Claim 58 (original): The sensor of claim 55 wherein said mass is unstable.

Claim 59 (original): The sensor of claim 55 wherein said mass is unstable and unbalanced.

Claim 60 (original): The sensor of claim 59 wherein said mass comprises a primary mass element that is attached to one of said piezoelectric element and said diaphragm, and a secondary mass element on said primary mass element.

Claim 61 (original): The sensor of claim 60 wherein said primary mass element is larger than said secondary mass element.

Claim 62 (original): The sensor of claim 60 wherein one or both of said primary mass and said secondary mass are generally spherical in shape.

Claim 63 (original): The sensor of claim 60 wherein said secondary mass element is on said primary mass element at a location that is offset from a line extending through said piezoelectric element and a center of gravity of said primary mass element.

Claim 64 (original): The sensor of claim 55 wherein said sensor comprises a piezoelectric audio transducer having said mass secured thereto.

Claim 65 (original): The sensor of claim 55 wherein said sensor comprises a support ring housing to which said diaphragm is mounted and which facilitates free-flexing of said diaphragm.

Claim 66 (original): The sensor of claim 55 in combination with a device that is activated or deactivated by said sensor.

Claim 67 (currently amended): A portable security alarm system for detecting the movement of an object and providing information relative to said movement, said system comprising a movement detecting and signal transmitting means for detecting movement an object and wirelessly transmitting a predetermined signal indicating movement of said object, and a receiver means for receiving said predetermined signal and providing a security response, said movement detecting and signal transmitting means comprising a combined long wave

motion sensor, ~~a~~ and vibration sensor and control circuitry for distinguishing between a vibration event and a long-wave motion event.